

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Daniel R. Deaver and David A. Edwards

Serial No.: Continuation of 10/120,940 Art Unit: Not Yet Assigned

Filed: November 19, 2003 Examiner: Not Yet Assigned

For: *COMPOSITIONS AND METHODS FOR ENHANCING RECEPTOR-MEDIATED CELLULAR INTERNALIZATION*

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicants submit an Information Disclosure Statement, including three (3) pages of Form PTO-1449. The documents cited below were cited by or submitted to the Patent Office in Application Serial No. 10/120,940, filed April 10, 2002, to which the present application claims priority. Pursuant to 37 C.F.R. §1.98(d), Applicants are not enclosing copies of these publications. Copies will be provided upon request, however.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-1868.

U.S.S.N.: Continuation of 10/120,940
Filed: November 19, 2003
INFORMATION DISCLOSURE STATEMENT

U.S. Patents

<u>Number</u>	<u>Issue Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
4,013,792	03-22-1977	Eichman et al.	424/181
4,383,993	05-17-1983	Hussain et al.	424/239
4,810,503	03-07-1989	Carson et al.	424/76.3
5,258,499	11-02-1993	Knoigsberg et al.	530/351
5,766,620	06-16-1998	Heiber et al.	424/436

Foreign Documents

<u>Number</u>	<u>Publication Date</u>	<u>Patentee</u>	<u>Country</u>
WO 92/11037 A2	07-09-1992	Advanced Magnetics Inc.	PCT
WO 94/00155 A1	01-06-1994	Monteresearch S.R.L.	PCT
WO 97/32572 A2	09-12-0997	The Penn State Research Foundation	PCT
1,090,492 A	11-08-1967	Merck & Co. Inc.	GB

Publications

BARZU, et al., "Endothelial binding sites for heparin. Specificity and role in heparin neutralization," *Biochem J.* 238(3):847-54 (1986).

Polymeric Amines and Ammonium Salts, (Goethals, ed.) (Pergamon Press, Elmsford, NY, 1980).

DEAVER, et al., "Effects of domperidone and thyrotropin-releasing hormone on secretion of luteinizing hormone and prolactin during the luteal phase and following induction of luteal regression in sheep," *Domes. Amin. Endocrinol.* 4(2):95-102 (1987).

EDWARDS, et al., "Spontaneous vesicle formation at lipid bilayer membranes," *Biophys J.* 71(3):1208-14 (1996).

EDWARDS, et al., "The nucleation of receptor-mediated endocytosis," *PNAS USA* 93(5):1786-91 (1996).

EVANS & YEUNG, "Apparent viscosity and cortical tension of blood granulocytes determined by micropipet aspiration," *Biophys J* 56(1):151-60 (1989).

GOLDSTEIN, et al., "Receptor-mediated endocytosis: concepts emerging from LDL receptor system," *Annu Rev Cell Biol* 1:1-39 (1985).

ILLUM, et al., "Bioadhesive microspheres as a potential nasal drug delivery system," *Int J Pharm* 39:189-199 (1987).

U.S.S.N.: Continuation of 10/120,940

Filed: November 19, 2003

INFORMATION DISCLOSURE STATEMENT

MANDAL, et al., "Physiochemical studies on achatininH, a novel sialic acid-binding lectin," *Biochem J* 257(1):65-71 (1989).

PAGANO, "Lipid traffic in eukaryotic cells: mechanisms for intracellular transport and organelle-specific enrichment of lipids," *Curr Opin Cell Biol* 2(4):652-63 (1990).

RODMAN, et al., "Endocytosis and transcytosis," *Curr Opin Cell Biol* 2(4):664-72 (1990).

SCHMID, "Biochemical requirements for the formation of clathrin- and COP-coated transport vesicles," *Curr Opin Cell Biol* 5(4):621-7 (1993).

SHEETZ & DAI, "Modulation of membrane dynamics and cell motility by membrane tension," *60th Annual Cold Spring Harbor Symposium on Protein Kinases*, Cold Spring Harbor, N.Y. (1995).

SMYTHE, et al., "Formation of coated vesicles from coated pits in broken A431 cells," *J Cell Biol* 108(3):843-53 (1989).

SMYTHE, et al., "Cytosol- and clathrin-dependent stimulation of endocytosis in vitro by purified adaptors," *J Cell Biol* 119(5):1163-71 (1992).

TROWBRIDGE, "Endocytosis and signals for internalization," *Curr Opin Cell Biol* 3(4):634-41 (1991).

WANG, et al., "Mechanotransduction across the cell surface and through the cytoskeleton," *Science* 260(5111):1124-7 (1993).

WRIGHT & DETMERS, "Receptor-mediated phagocytosis" in The Lung: Scientific Foundations (Crystal, et al., eds.), pp. 539-49 (Ravens Press, Ltd., New York, NY (1991).

U.S.S.N.: Continuation of 10/120,940
Filed: November 19, 2003
INFORMATION DISCLOSURE STATEMENT

Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicants invite the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicants are of the opinion that their claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,

Rivka D. Monheit
Reg. No. 48,731

Dated: November 19, 2003

HOLLAND & KNIGHT LLP
One Atlantic Center
1201 West Peachtree Street, N.E.
Suite 2000
Atlanta, Georgia 30309-3400
404-817-8514
FAX 404-817-8588
www.hklaw.com
1374751_v1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	Continuation of 10/120,940
		Filing Date	November 19, 2003
		First Named Inventor	Daniel R. Deaver
		Group Art Unit	
		Examiner Name	
Sheet	1	of	3
		Attorney Docket Number	PSU 1813 CON (2)

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examine Signature		Date Considered	
----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commission for Patent, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	Continuation of 10/120,940
Filing Date	November 19, 2003		
First Named Inventor	Daniel R. Deaver		
Group Art Unit			
Examiner Name			
Sheet 2 of 3	Attorney Docket Number	PSU 1813 CON (2)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		BARZU, et al., "Endothelial binding sites for heparin. Specificity and role in heparin neutralization," <i>Biochem J.</i> 238(3):847-54 (1986).	
		DEAVER, et al., "Effects of domperidone and thyrotropin-releasing hormone on secretion of luteinizing hormone and prolactin during the luteal phase and following induction of luteal regression in sheep," <i>Domes. Amin. Endocrinol.</i> 4(2):95-102 (1987).	
		EDWARDS, et al., "Spontaneous vesicle formation at lipid bilayer membranes," <i>Biophys J.</i> 71(3):1208-14 (1996).	
		EDWARDS, et al., "The nucleation of receptor-mediated endocytosis," <i>PNAS USA</i> 93(5):1786-91 (1996).	
		EVANS & YEUNG, "Apparent viscosity and cortical tension of blood granulocytes determined by micropipet aspiration," <i>Biophys J</i> 56(1):151-60 (1989).	
		GOLDSTEIN, et al., "Receptor-mediated endocytosis: concepts emerging from LDL receptor system," <i>Annu Rev Cell Biol</i> 1:1-39 (1985).	
		ILLUM, et al., "Bioadhesive microspheres as a potential nasal drug delivery system," <i>Int J Pharm</i> 39:189-199 (1987).	
		MANDAL, et al., "Physiochemical studies on achaininH, a novel sialic acid-binding lectin," <i>Biochem J</i> 257(1):65-71 (1989).	
		PAGANO, "Lipid traffic in eukaryotic cells: mechanisms for intracellular transport and organelle-specific enrichment of lipids," <i>Curr Opin Cell Biol</i> 2(4):652-63 (1990).	

Examiner's Signature	Date Considered
----------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08A (10-88)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	Continuation of 10/120,940
		Filing Date	November 19, 2003
		First Named Inventor	Daniel R. Deaver
		Group Art Unit	
Examiner Name			
Sheet	3	of	3
		Attorney Docket Number	PSU 1813 CON (2)

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Polymeric Amines and Ammonium Salts, (Goethals, ed.) (Pergamon Press, Elmsford, NY, 1980).	
		RODMAN, et al., "Endocytosis and transcytosis," <i>Curr Opin Cell Biol</i> 2(4):664-72 (1990).	
		SCHMID, "Biochemical requirements for the formation of clathrin- and COP-coated transport vesicles," <i>Curr Opin Cell Biol</i> 5(4):621-7 (1993).	
		SHEETZ & DAI, "Modulation of membrane dynamics and cell motility by membrane tension," <i>60th Annual Cold Spring Harbor Symposium on Protein Kinases</i> , Cold Spring Harbor, N.Y. (1995).	
		SMYTHE, et al., "Cytosol- and clathrin-dependent stimulation of endocytosis in vitro by purified adaptors," <i>J Cell Biol</i> 119(5):1163-71 (1992).	
		SMYTHE, et al., "Formation of coated vesicles from coated pits in broken A431 cells," <i>J Cell Biol</i> 108(3):843-53 (1989).	
		TROWBRIDGE, "Endocytosis and signals for internalization," <i>Curr Opin Cell Biol</i> 3(4):634-41 (1991).	
		WANG, et al., "Mechanotransduction across the cell surface and through the cytoskeleton," <i>Science</i> 260(5111):1124-7 (1993).	
		WRIGHT & DETMERS, "Receptor-mediated phagocytosis" in <i>The Lung: Scientific Foundations</i> (Crystal, et al., eds.), pp. 539-49 (Ravens Press, Ltd., New York, NY (1991).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.